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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/692,828	10/24/2003	Daniel James Dickinson	TE9A; P025A	9259
7590 10/28/2008				
Themi Anagnos				
1155 Rose				
Lake Zurich, IL, 60047				
EXAMINER				
RODRIGUEZ, RUTH C				
ART UNIT		PAPER NUMBER		
3677				
MAIL DATE		DELIVERY MODE		
10/28/2008		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/692,828

Applicant(s)

DICKINSON ET AL.

Examiner

RUTH C. RODRIGUEZ

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 July 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17, 20-31, 33-41, 44-55, 58-69 and 72-100 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-3, 5, 7, 9, 10, 14, 15, 22, 26, 27, 33-41, 44-55, 58-69, 72-78 and 83-100 is/are allowed.
- 6) ☒ Claim(s) 4, 6, 8, 11-13, 16, 17, 25, 30 and 31 is/are rejected.
- 7) ☒ Claim(s) 20, 21, 23, 24, 28, 29 and 79-82 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

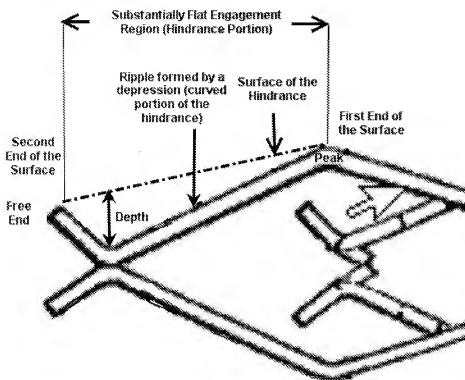
1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 4, 6, 8, 11-13, 16, 17 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Benedetti (US 4,402,118) in view of Holton (US 3,525,129).

A spring fastener (10) comprises a first side (12), a second side (14) opposite the first side, a bottom portion (54) and a top portion (Figs. 1-8). The first side is connected to the second side thereby forming a U-shaped structure having a cavity between the first side and the second side (Figs. 1-8). A bottom portion (54) connects the first side and the second side (Figs. 1-8). The first side comprises first barbs (66) having first front ends (68) and a first engagement spring (34) is connected to the first side in the vicinity of the bottom portion. The second side comprises second barbs (68) having second front ends and a second engagement spring (36) connected to the second side in the vicinity of the bottom portion (Figs. 1-8). Each of the first and second engagement springs has a free end (free end of 34 or 36) in the vicinity of the top portion (Figs. 1-8). Each of the first and second engagement springs also comprises a

peak (46,48) and an engagement region substantially flat engagement region with a hindrance portion (region of the engagement spring between 46 and the free end of the spring 34 or region of engagement spring between 48 and the free end of the spring 36) between a free end and a peak in the vicinity of the peak (Figs. 1-8). The hindrance portion comprises only one ripple (defined by the recess between 46 and the free end of the spring 34 and defined by the recess between 48 and the free end of the spring 36) having the form of a depression (recess provided between 46 and the free end of the spring 34 and recess provided between 48 and the free end of the spring 36) on the hindrance portion. The depression has a deepest part, a back side (near the free end) substantially lacking a front side (near the peak) and a width (Figs. 1-8). The hindrance portion has a surface (between the peak and the free end) wherein the depth of the ripple is the distance between the surface of the hindrance and the deepest part of the ripple (Figs. 1-8).



The ripple provides increased removal force and when the fastener is pulled by an extension (20) of a first part (16) engaged to the first and second barbs after the fastener has been inserted into a slot (28) of a second part (26) (Figs. 1-8). The slot having a slot width and edges on which edges the engagement region is engaged (Figs. 1-8). It is inherent that the increased removal force is due to the hindrance portion and the fastener can be extracted when pulled by the extension without damage to the fastener as Figs. 1-8 since the spring fastener only engages the sides of the slot in order to retain the spring fastener and upon application of a considerable amount of force the spring fastener can deform allowing the disengagement of spring fastener and the slot without causing any damage to the spring fastener. Benedetti fails to disclose that the spring

fastener further comprises a relief opening in the vicinity of the bottom of the spring fastener. However, Holton teaches a spring fastener comprises a first side (38) and a second side (38a) opposite the first side (Figs. 4-6). The first side is connected to the second side thereby forming a U-shaped structure having a cavity between the first side and the second side (Figs. 4-6). A bottom portion connects the first side and the second side and a top portion (Figs. 4-6). The spring fastener further comprises a relief opening (70) in the vicinity of the bottom of the spring fastener. The relief opening increases deformability or collapsibility of the body section making it easier to secure the fastener on to a supporting panel or part (C. 4, l. 16-17). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have a relief opening in the vicinity of the bottom of the spring fastener as taught by Holton in the fastener of Benedetti. Doing so, increases deformability or collapsibility of the U-shaped structure making it easier to secure the fastener on to a supporting panel or part.

Benedetti also discloses that:

- The fastener has been made of a material having a thickness (measured between the peaks of the first and second engagement springs). The depth of the ripple is smaller than the thickness (Figs. 1-8).
- The ripple width (measured from the peak to the free end) of each engagement spring is larger than the depth of the ripple.
- The back side has the form of a curvature with a gradually decreased slope (Figs. 1-8).

- The barbs are selected from a group consisting essentially of: first barbs being outer barbs and second barbs being inner barbs where the first barbs are outside outer barbs and the second barbs are inside outer barbs and first barbs being inner barbs and the second barbs being inner barbs (Figs. 1-8).

- The fastener has a width in the vicinity of the top portion of the fastener that is at least 60% as wide as the slot width (Figs. 1, 3 and 5-7).

Benedetti discloses a spring fastener with all the limitations listed above in paragraph 3 for the rejection of claims 11. Benedetti fails to disclose that the gradually decreasing slope has the shape of an arch in the range of 50-70 degrees and the arch has a radius of 0.03 to 0.05 mm. However, it would have been obvious matter of design choice to provide a gradually decreasing slope has the shape of an arch in the range of 50-70 degrees and the radius of the arch being 0.03 to 0.05 mm, since such a modification would have involved a mere change in the size of a component. A change in size is generally recognized as being within the level of ordinary skill in the art. *In re Rose*, 105 USPQ 237, (CCPA 1955).

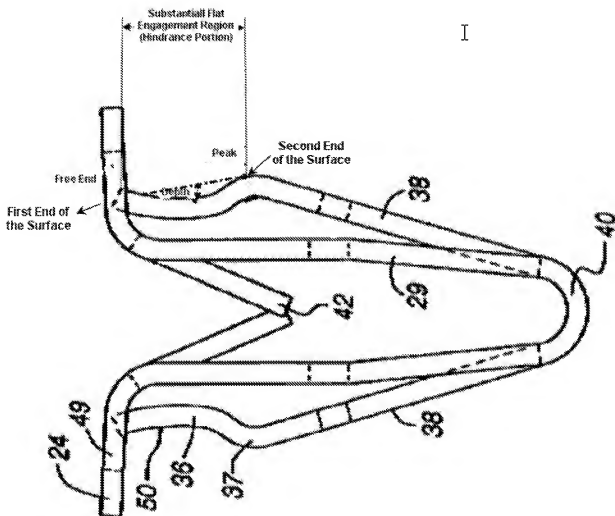
Benedetti discloses a spring fastener with all the limitations listed above in paragraph 3 for the rejection of claims 11. Benedetti fails to disclose the dimensions of the spring fastener. However, it would have been obvious matter of design choice to provide the dimension cited in the claims since such a modification would have involved a mere change in the size of a component. A change in size is generally recognized as being within the level of ordinary skill in the art. *In re Rose*, 105 USPQ 237, (CCPA 1955).

3. Claims 4, 6, 8, 11-13, 16, 17, 25, 30 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Osterland et al. (US 6,928,705 B2) in view of Holton (US 3,525,129).

Osterland discloses a spring fastener (20,120) comprises a first side (22,122) and a second side (22,122) opposite the first side (Figs. 1-21). The first side is connected to the second side thereby forming a U-shaped structure (20,120) having a cavity between the first side and the second side (Figs. 1-21). A bottom portion (40,140) connects the first side and the second side and a top portion (24,124). The first side comprises first barbs (26,126) having first front ends and a first engagement spring (28,128). The first engagement spring connected to the first side in the vicinity of the bottom portion (Figs. 1-21). The second side comprises second barbs (26,126) having second front ends and a second engagement spring (28,128). The second engagement spring connected to the second side in the vicinity of the bottom portion (Figs. 1-21). Each of the first and second engagement springs has a peak and an engagement region (36,136) with a hindrance portion (region of the engagement spring between 37,137 and the free end of the spring 28,128) between the free end and the peak (37,137) in the vicinity of the peak (Figs. 1-21). The hindrance portion comprises only one ripple having the form of a depression (recess provided between 37,137 and the free end of the spring 28,128) on the hindrance portion. The depression has a deepest part, a backside substantially lacking a front side and a width (Figs. 1-8). The hindrance portion has a surface (between 37,137 and the free end of the spring 28,128) wherein the depth of each ripple is the distance

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between the surface of the hindrance and the deepest part of the respective ripple (Figs. 1-21).



It is inherent that the increased removal force is due to the hindrance portion and the fastener can be extracted when pulled by the extension without damage to the fastener as Figs. 1-8 since the spring fastener only engages the sides of the slot in order to retain the spring fastener and upon application of a considerable amount of force the spring fastener can deform allowing the disengagement of spring fastener and the slot without

causing any damage to the spring fastener. Osterland fails to disclose that the spring fastener further comprises a relief opening in the vicinity of the bottom of the spring fastener. However, Holton teaches a spring fastener comprises a first side (38) and a second side (38a) opposite the first side (Figs. 4-6). The first side is connected to the second side thereby forming a U-shaped structure having a cavity between the first side and the second side (Figs. 4-6). A bottom portion connects the first side and the second side and a top portion (Figs. 4-6). The spring fastener further comprises a relief opening (70) in the vicinity of the bottom of the spring fastener. The relief opening increases deformability or collapsibility of the body section making it easier to secure the fastener on to a supporting panel or part (C. 4, l. 16-17). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have a relief opening in the vicinity of the bottom of the spring fastener as taught by Holton in the fastener of Osterland. Doing so, increases deformability or collapsibility of the U-shaped structure making it easier to secure the fastener on to a supporting panel or part.

Osterland also discloses that:

- The fastener has been made of a material having a thickness (measured between the peaks of the first and second engagement springs). The depth of the ripple is smaller than the thickness (Figs. 1-21).
- The ripple width (measured from the peak to the free end) of each engagement spring is larger than the depth of the ripple (Figs. 1-21).
- The back side has the form of a curvature with a gradually decreasing slope (Figs. 1-21).

- The barbs are selected from a group consisting essentially of: first barbs being outer barbs and second barbs being inner barbs where the first barbs are outside outer barbs and the second barbs are inside outer barbs and first barbs being inner barbs and the second barbs being inner barbs (Figs. 1-21).

- The fastener has a width in the vicinity of the top portion of the fastener that is at least 60% as wide as the slot width (Figs. 10A-11 and 20A-21).

- The fastener further comprises additional lower barbs (137) pointing inwardly and originating from the vicinity of the bottom portions of the first side and the second side of the fastener (Figs. 12-21).

- Each side of the spring fastener has only one upper barb and one lower barb (Figs. 12-21). The upper barb of one side facing the lower barb of the other side and vice versa (Figs. 12-21).

Osterland discloses a spring fastener with all the limitations listed above in paragraph 3 for the rejection of claims 11. Osterland fails to disclose that the gradually decreasing slope has the shape of an arch in the range of 50-70 degrees and the arch has a radius of 0.03 to 0.05 mm. However, it would have been obvious matter of design choice to provide a gradually decreasing slope has the shape of an arch in the range of 50-70 degrees and the radius of the arch being 0.03 to 0.05 mm, since such a modification would have involved a mere change in the size of a component. A change in size is generally recognized as being within the level of ordinary skill in the art. *In re Rose*, 105 USPQ 237, (CCPA 1955).

Osterland discloses a spring fastener with all the limitations listed above in paragraph 3 for the rejection of claims 11. Osterland fails to disclose the dimensions of the spring fastener. However, it would have been obvious matter of design choice to provide the dimension cited in the claims since such a modification would have involved a mere change in the size of a component. A change in size is generally recognized as being within the level of ordinary skill in the art. *In re Rose*, 105 USPQ 237, (CCPA 1955).

Allowable Subject Matter

4. Claims 1-3, 5, 7, 9, 10, 14, 15, 22, 26, 27, 33-41, 44-55, 58-69, 72-78 and 83-100 are allowed.
5. Claims 20, 21, 23, 24, 28, 29 and 79-82 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

6. Applicant's arguments filed 22 July 2008 have been fully considered but they are not persuasive.
7. The Examiner regrets any inconvenience experienced by the Applicant regarding the prior indication of allowability of claims 32 (now incorporated into claim 11). However as cited in the office action for the rejection of claim 11, Holton teaches that

providing a relief opening in the vicinity of the bottom of the spring fastener increases deformability or collapsibility of the U-shaped structure making it easier to secure the fastener onto a supporting panel or part. Therefore, applying such a teaching to either one of the reference of Benedetti or Osterland serves to meet this claim limitation and provides increased deformability or collapsibility of the U-shaped structure making it easier to secure the fastener onto a support panel or part.

8. The Applicant also argues that the drawing included in the rejection of the claims based upon Benedetti is incorrect since a drawing presented in the rejection belongs to Osterland. The Examiner has revised the office action to replace the drawing included in the rejection of the claims.

9. The Applicant continues to argue that Benedetti and Osterland fail to disclose that "the depth of each ripple is the distance between the surface of the hindrance portion and the deepest part of the respective ripple". The marked-up drawings included in the rejection of the claims are presented to better illustrate the Examiner's rejection. The depression or recess provided between the peak and the free end of each spring serves as the ripple since the claims fail to indicate that a recess is provided between the peak and the free end of each spring and that the ripple is provided between the peak and the recess. The surface of the hindrance portion is defined by the free end and the peak with the ripple (recess) extending between the peak and the free end. The drawings provided with each rejection include a dotted line indicating how the surfaces will look if the recess provided between the free end and the peak was not included. This dotted line is what serves to define the depth of each ripple

since the depth of each ripple is the distance between the surface of the hindrance portion and the deepest part of the respective ripple and as indicated by the double ended arrow the depth of each ripple is defined by the distance between the surface of the hindrance portion (shown in the dotted line) and the deepest portion of the ripple. Therefore, Benedetti and Osterland do meet all the claim limitations when combined with the relief opening of Holton.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **RUTH C. RODRIGUEZ** whose telephone number is (571) 272-7070. The examiner can normally be reached on M-F 07:15 - 15:45. If

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attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Victor D. Batson can be reached on (571) 272-6987.

Submissions of your responses by facsimile transmission are encouraged. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-6640.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Jennifer H Gay/
Supervisory Patent Examiner, Art
Unit 3676

rcr
October 31, 2008

/Robert J. Sandy/
Primary Examiner, Art Unit 3677